



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,502	08/01/2001	Fu-Chu Wen	13139	6098
7590	07/21/2003			
David A Kalow Kalow & Springut LLP 19th Floor 488 Madison Avenue New York, NY 10022			EXAMINER MANLOVE, SHALIE A	
		ART UNIT 1755	PAPER NUMBER 6	

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/921,502	WEN ET AL.
	Examiner Shalie A. Manlove	Art Unit 1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 July 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,4-8,11,13-15,17-19,23,24,30-33,41,42,44,45 and 48 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 23,24 and 30-33 is/are allowed.
- 6) Claim(s) 1,2,4-8,11,13-15,17-19,41,42,44,45 and 48 is/are rejected.
- 7) Claim(s) 45 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Withdrawn Objections

1. The claim objection of record in paper 3, page 2, paragraph 1, has been withdrawn due to Applicant's amendment in paper 5.

Withdrawn Rejections

2. The 35 U.S.C. 112 rejections of record in paper 3, page 2, paragraph 3, have been withdrawn due to Applicants amendment in paper 5.
3. The 35 U.S.C. 102 rejections of record in paper 3, pages 2-3, paragraph 5, have been withdrawn due to Applicants amendment in paper 5.

Priority

4. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

New Rejections

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites "a pigment composition wherein the pigment composition has a particle size range between about 0.1 and about 0.5 microns". The claim is vague and indefinite because it does not specify which particle in the pigment composition is being referenced, the base particle-titanium dioxide or coating particle-calcium carbonate.

7. Claims 1-2, 4-8, 11, 13-19, 42 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolt (USPN 5,650,002).

As to claims 1, Bolt teaches a pigment composition comprising one or more inorganic base particles and one or more substantially spherical shaped calcium carbonate spacer particles having a particle size range about 0.1 microns (col. 1, lines 55-60; col. 2, lines 38-46, 55-56; col. 3, lines 8-10, and 35-39). The Examiner deems calcium carbonate to be a spacer particle that enables the pigment to improve its light scattering efficiency. A *prima facie* case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art. *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549,553 (CCPA 1974).

As to claim 2, Bolt teaches the base particles to be anatase or rutile titanium dioxide (col. 2, lines 14-16).

As to claims 4-7, Bolt teaches tetrapotassium pyrophosphate and polyacrylates to be dispersants (col. 4, lines 65-67). Although the Applicant teaches tetrapotassium pyrophosphate and polyacrylates to be surfactants, one of ordinary skill would deem the substance to be either a surfactant or a dispersant, especially since the same substances are taught.

As to claim 8, Bolt teaches the spacer particle, calcium carbonate (col. 1, line 58) to have a particle size range between about 0.1 and 0.5 microns.

As to claim 11, Bolt teaches a pigment composition comprising titanium dioxide base particles, one or more substantially spherical shaped calcium carbonate particles deposited thereon (col. 2, lines 38-46, and a surfactant (col. 4, lines 65-67), the calcium carbonate spacer particles having a particle size range of .1 micron (col. 1, line 58).

As to claim 13, Bolt teaches an inorganic composition comprising one or more substantially spherical shaped calcium carbonate particles (col. 3, lines 37-38), having a size range between about 0.05 – 0.1 microns (col. 1, line 58).

As to claims 14-19, Bolt teaches the process of making the pigment particles comprising preparing an aqueous slurry of base pigment particles, adding a surfactant, tetrapotassium pyrophosphate or polyacrylates, precipitating the calcium spacer precursors (col. 4, lines 54-67; col. 5, lines 21-34) on the base pigment particles so as to form calcium carbonate particles having a particle size range of 0.1 microns (col. 1, line 58).

As to claims 41-42, 44 and 48, Bolt teaches industrial applications for use in coatings, plastics, inks, and paper, and paper laminates (col. 5, lines 35-39).

Allowable Subject Matter

8. Claims 23-24, and 30-33 are allowed.

9. Claim 45 is objected to as being referred to a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach the claimed method of making a substantially spherical calcium carbonate particle, having a particle size range between about 0.1 and about 1 micron or the method of preparing the titanium dioxide particle wherein spherical calcium carbonate of particle size range .01 to 1.0 micron are precipitated on the base particle titanium dioxide, which has a particle size of 0.1 to 0.5 microns.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

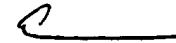
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275. The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Shalie A. Manlove
Examiner
Art Unit 1755

July 17, 2003


C. MELISSA KOSLOW
PRIMARY EXAMINER